Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Original) Method of producing a radiolabelled gallium complex by reacting a Ga^{3+} radioisotope with a chelating agent characterised in that the reaction is carried out using microwave activation.

2. (Original) Method according to claim 1 wherein the Ga^{3+} radioisotope is selected from the group consisting of $^{66}Ga^{3+}$, $^{67}Ga^{3+}$ and $^{68}Ga^{3+}$.

3. (Previously presented) Method according to claim 1 wherein the Ga^{3+} radioisotope is $^{68}Ga^{3+}$.

4. (Previously presented) Method according to claim 1 wherein the chelating agent is a macrocyclic chelating agent.

5. (Previously presented) Method according to claim 1 wherein the chelating agent comprises hard donor atoms, preferably O and N atoms.

6. (Previously presented) Method according to claim 1 wherein the chelating agent is a bifunctional chelating agent.

7. (Previously presented) Method according to claim 1 wherein the chelating agent is a bifunctional chelating agent comprising a targeting vector selected from the group consisting of proteins, glycoproteins, lipoproteins, polypeptides, glycopolypeptides, lipopolypeptides, peptides, glycopeptides, lipopeptides, carbohydrates, nucleic acids, oligonucleotides or a part, a fragment, a derivative or a complex of the aforesaid compounds and small organic molecules.

8. (Original) Method according to claim 7 wherein the target vector is a peptide or oligonucleotide.

9. (Previously presented) Method according to claim 1 wherein the microwave activation is carried out at 80 to 120 W, preferably at 90 to 110 W.

10. (Previously presented) Method according to claim 1 wherein the microwave activation is carried out for 20 s to 2 min, preferably for 30 s to 90 s.

11. (Previously presented) Method according to claim 3 wherein the $^{68}Ga^{3+}$ is obtained by contacting the eluate from a $^{68}Ge/^{68}Ga$ generator with an anion exchanger and eluting $^{68}Ga^{3+}$ from said anion exchanger.

12. (Original) Method according to claim 11 wherein the $^{68}Ge/^{68}Ga$ generator comprises a column comprising titanium dioxide.

13. (Previously presented) Method according to claim 11 wherein the anion exchanger comprises HCO_3^- as counterions.

14. (Previously presented) Method according to claim 11 wherein the anion exchanger is an anion exchanger comprising quaternary amine functional groups, or the ion exchanger is a anion exchange resin based on polystyrene-divinylbenzene.

15. (Previously presented) Method according to claim 6 for the production of ^{68}Ga-radiolabelled PET tracers.

16. (New) Method according to claim 11 wherein the eluting $^{68}Ga^{3+}$ is in the picomolar to nanomolar range after the elution, and more preferably in a nanomolar to micromolar level.